International Hydrographic Organization

– IHO Antarctic GIS –

IHO Antarctic GIS

- An “Antarctic GIS” is being developed at the IHB, which will comprise a number of layers of information relating to Hydrography, e.g. surveys, INT charts or ENCs.
- It will provide metadata and geometry for each layer.
- Assistance in this development is provided by an officer kindly seconded to the IHB by Japan (JHOD).

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Currently, the layers of information being considered include:

- **Hydrographic Surveys** :
  - Systematic surveys (areas defined by closed polygons).
  - Enroute surveys / Soundings on passage.

- **INT Charts** :
  - Agreed scheme
  - Charts published / not published / planned

- **ENCs** :
  - Agreed scheme for all Usage Bands
  - ENCs published / not published / planned

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Currently, the layers of information being considered include (cont):

- **RNCs** :
  - RNCs produced or published.

- **Geographical Names**:
  - Undersea Feature Names, e.g. from GEBCO-SCUFN Gazetteer
  - Other maritime names, e.g. from S-23
  - Land Toponomy, e.g. from SCAR Composite Gazetteer on Antarctica

- **Tide records**

- **Scientific Stations**

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How will the Antarctic GIS look like?

- An initial draft Antarctic GIS can be seen at http://hca.iho.int/cgi-bin/getkml.php (to be used with Google Earth)

Data Model

- As part of the Antarctic GIS development process, a Data Model is being prepared. See Excel table showing the metadata which will be presented for each layer of information.

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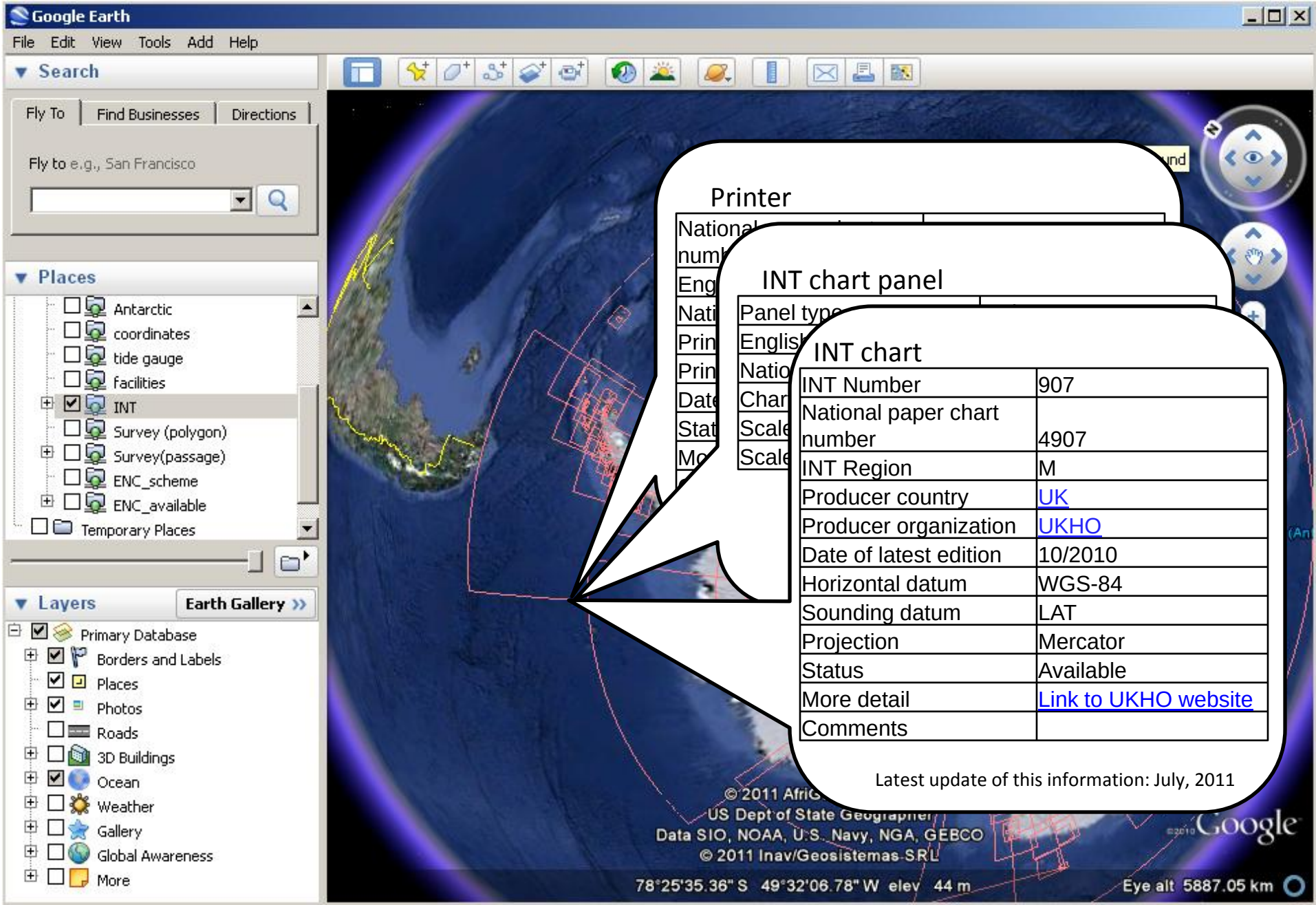
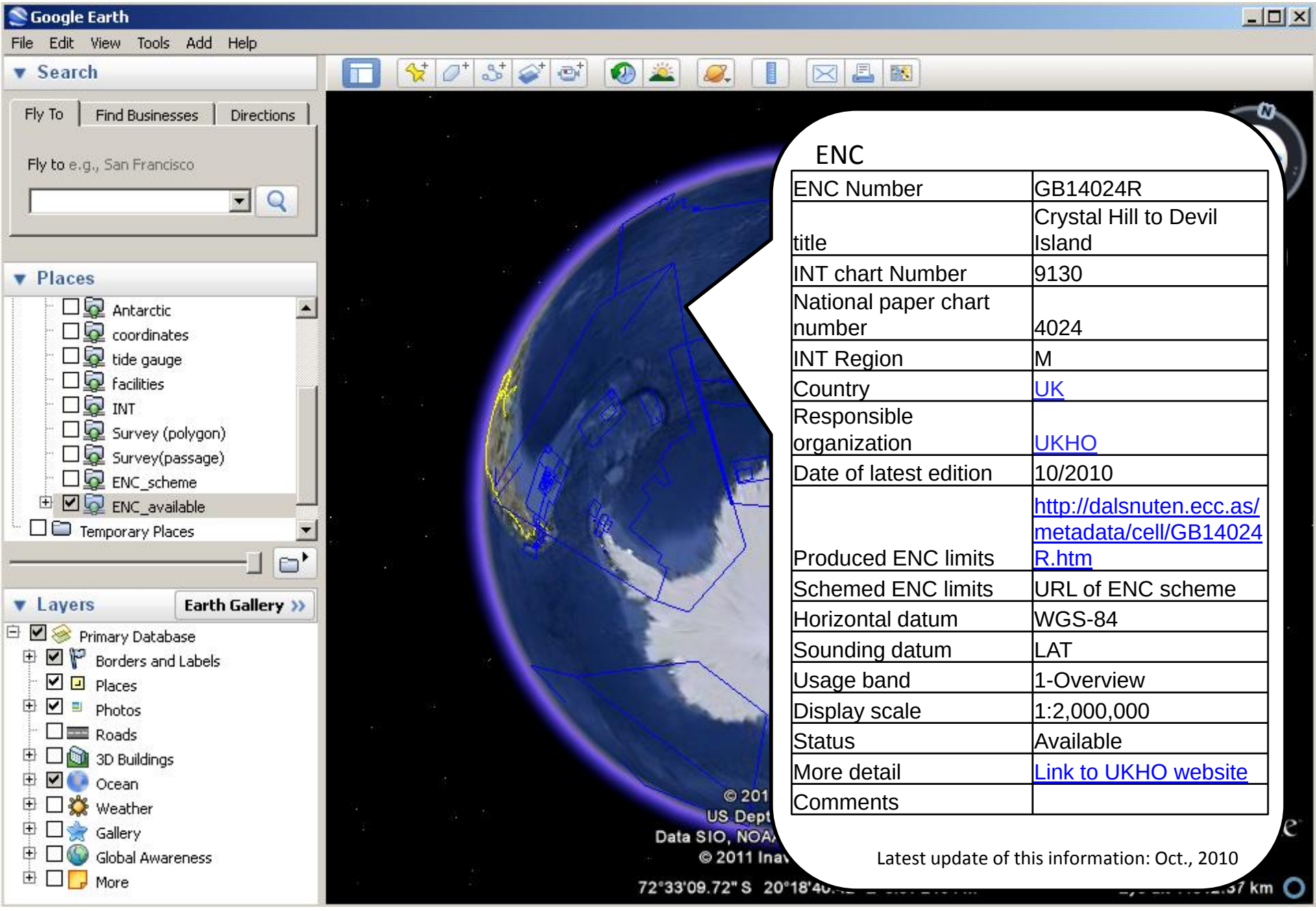
The slides which follow are based on the data model, as developed to date (December 2011).

Antarctic GIS (INT Charts)



Antarctica GIS (ENCs)

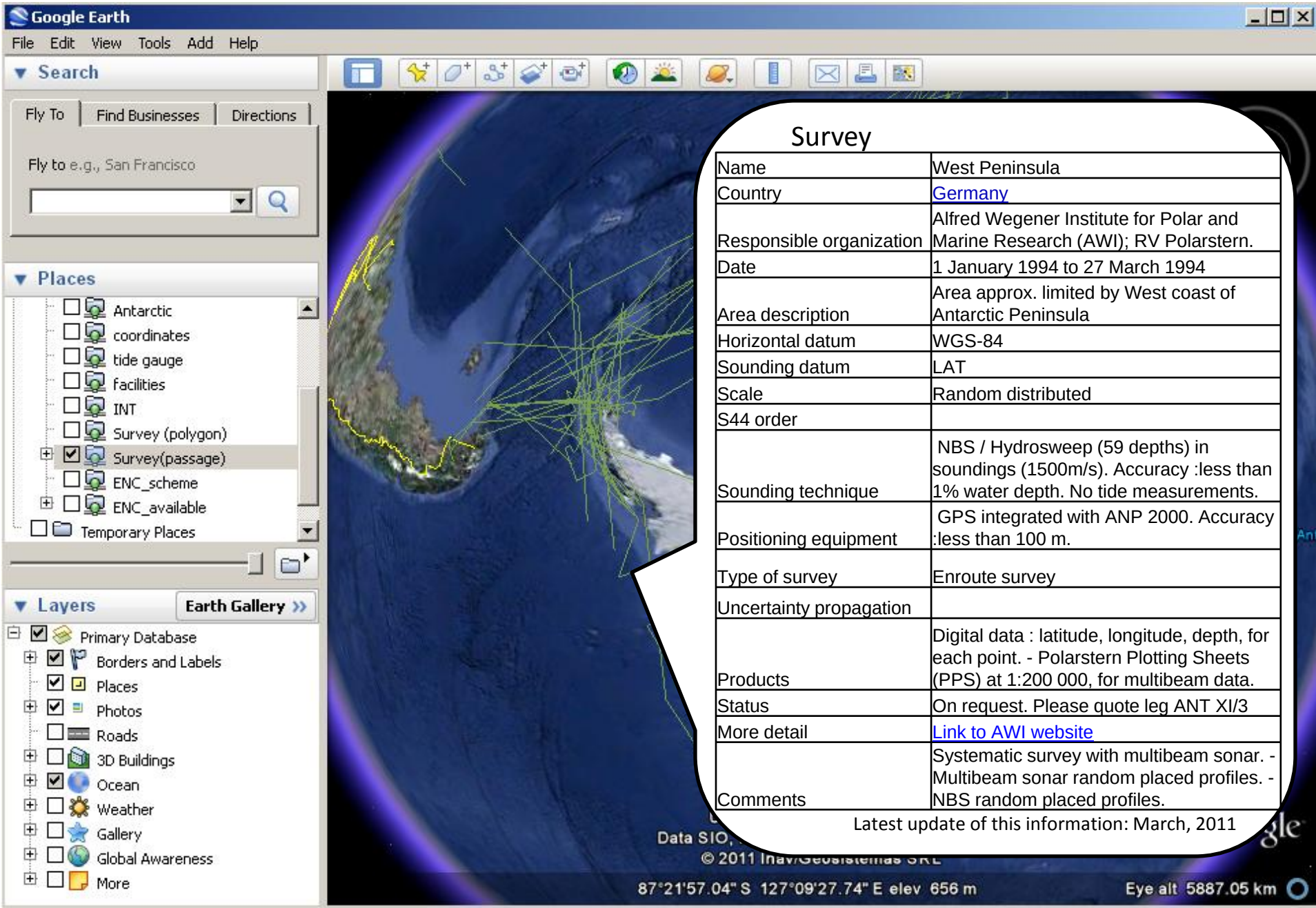


ENC

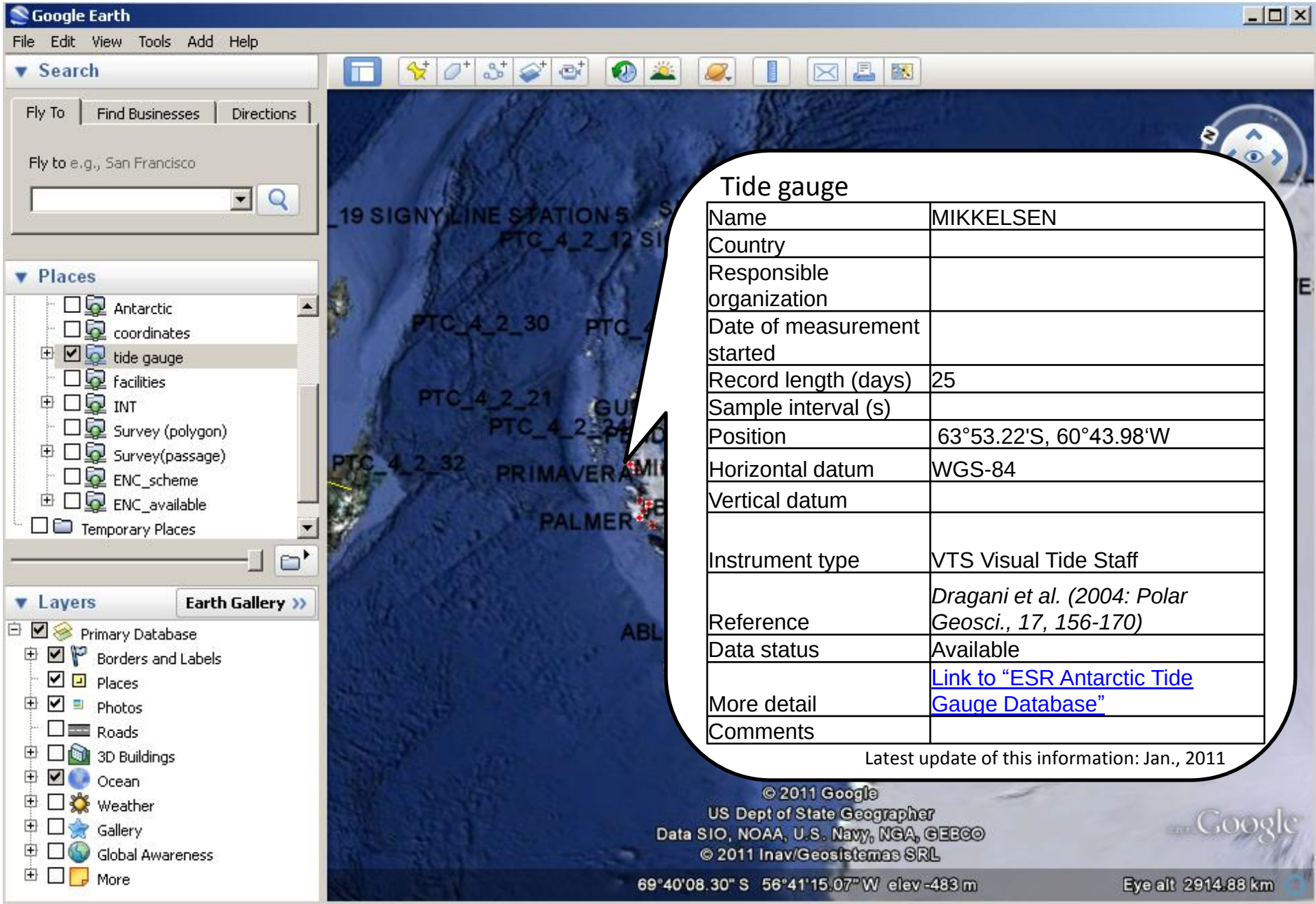
ENC Number	GB14024R
title	Crystal Hill to Devil Island
INT chart Number	9130
National paper chart number	4024
INT Region	M
Country	UK
Responsible organization	UKHO
Date of latest edition	10/2010
Produced ENC limits	http://dalsnuten.ecc.as/metadata/cell/GB14024R.htm
Schemed ENC limits	URL of ENC scheme
Horizontal datum	WGS-84
Sounding datum	LAT
Usage band	1-Overview
Display scale	1:2,000,000
Status	Available
More detail	Link to UKHO website
Comments	

Latest update of this information: Oct., 2010

Antarctica GIS (Surveys)



Antarctica GIS (tide records)

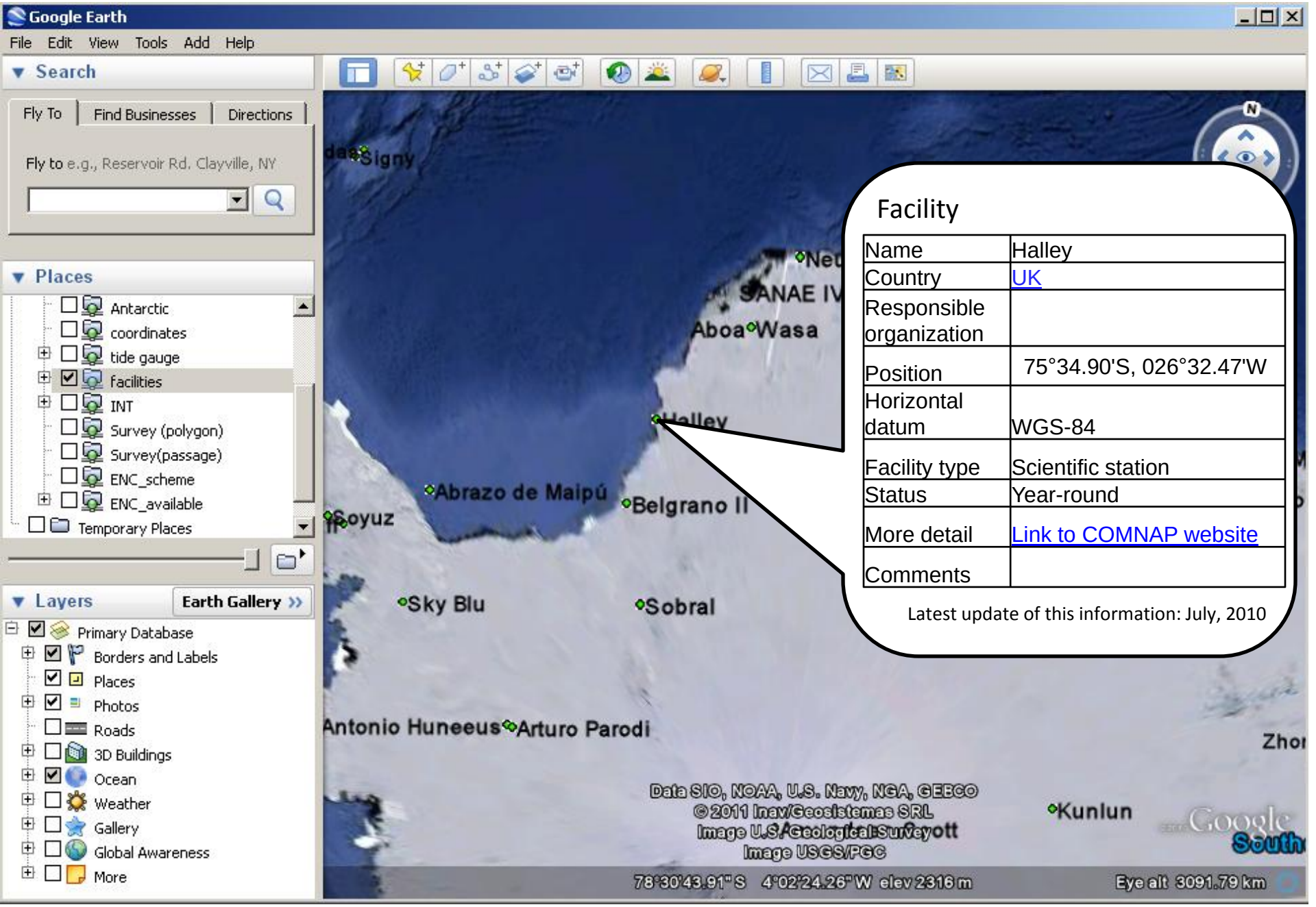


Tide gauge

Name	MIKKELSEN
Country	
Responsible organization	
Date of measurement started	
Record length (days)	25
Sample interval (s)	
Position	63°53.22'S, 60°43.98'W
Horizontal datum	WGS-84
Vertical datum	
Instrument type	VTS Visual Tide Staff
Reference	*Dragani et al. (2004: Polar Geosci., 17, 156-170)*
Data status	Available
More detail	Link to "ESR Antarctic Tide Gauge Database"
Comments	

Latest update of this information: Jan., 2011

Antarctica GIS (Facilities / Scientific Stations)

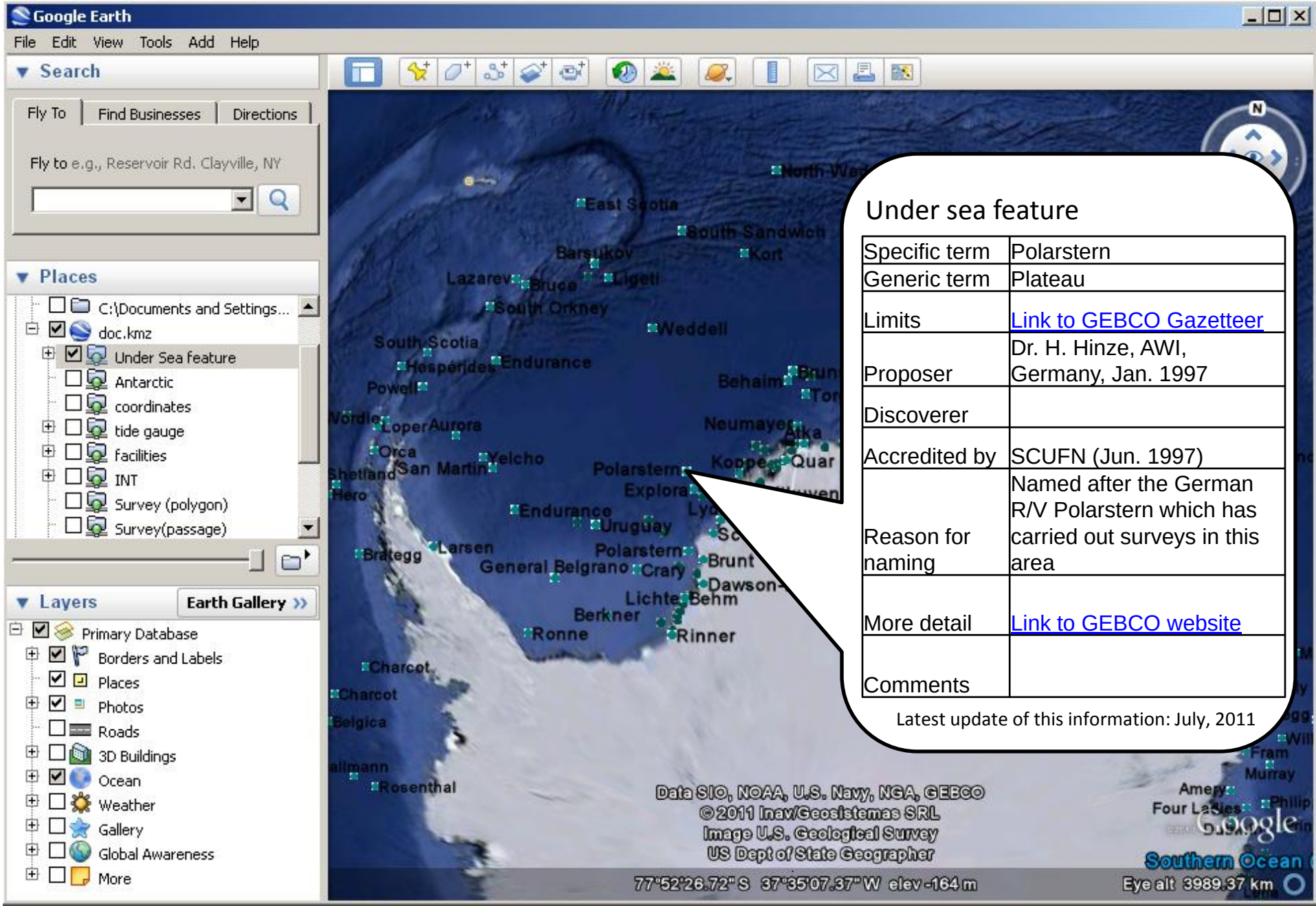


Facility

Name	Halley
Country	UK
Responsible organization	
Position	75°34.90'S, 026°32.47'W
Horizontal datum	WGS-84
Facility type	Scientific station
Status	Year-round
More detail	Link to COMNAP website
Comments	

Latest update of this information: July, 2010

Antarctica GIS (Undersea feature names)



Under sea feature

Specific term	Polarstern
Generic term	Plateau
Limits	Link to GEBCO Gazetteer
Proposer	Dr. H. Hinze, AWI, Germany, Jan. 1997
Discoverer	
Accredited by	SCUFN (Jun. 1997)
Reason for naming	Named after the German R/V Polarstern which has carried out surveys in this area
More detail	Link to GEBCO website
Comments	

Latest update of this information: July, 2011